

### ABSTRACT

A method for measuring the diameter of an elongated article approximately circular in cross section, in particular of a wire or of a cable, with the following method steps

- illumination of the article with a fan-shaped beam of at least one monochromatic light source approximately point shaped in the measuring plane, wherein the main beam direction stands preferably perpendicular on the longitudinal axis of the article
- receiving the light on a single or multiple lined light-sensitive sensor on the oppositely lying side of the article, wherein the axis of the sensor stands preferably perpendicular on the main beam direction
- measuring the distance of the article to the sensor or the light source
- determining a value corresponding to the article diameter by evaluating the intensity courses in the diffraction margins at the edges of the shadow caused by the article, and of the measured diameter
- the distance of the light source to the article or of the sensor to the article is selected such that the diffraction effect of oppositely lying edges of the article do not superimpose one another or only insignificantly superimpose one another in the plane of the sensor.